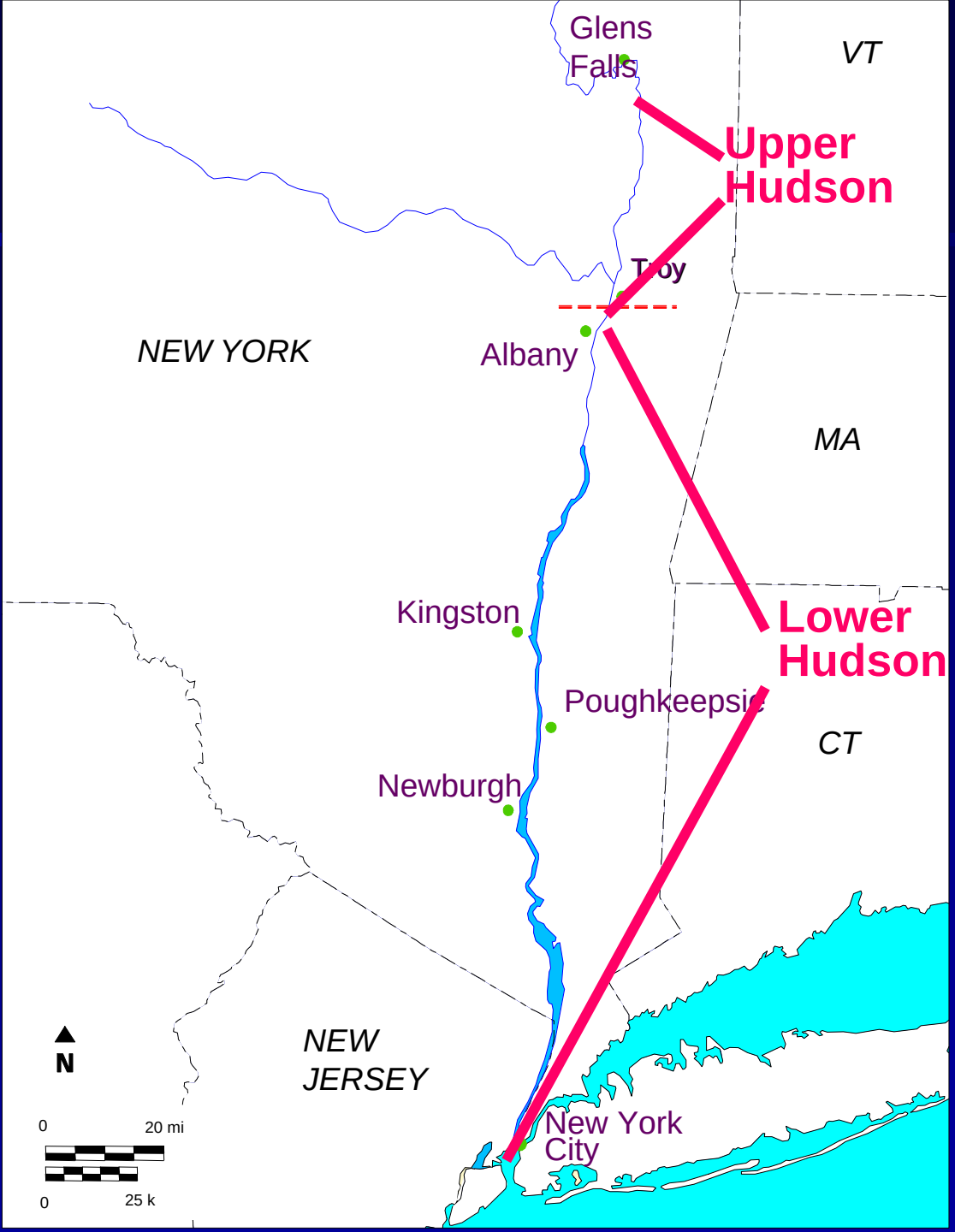

Hudson River Dredging Project Design Overview 01/24/07

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GE Hudson Falls Plant Site

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Upper Hudson River
Thompson Island Pool

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Selected Remedy - 2002 ROD

- Dredge ~500 acres
- Remove 2.6 M cy of sediments
- Remove 150,000 lbs of PCBs
- Start slow and gear up to full scale operations during first year of program (Phase 1)
- Establish performance standards to provide protection and ensure timely success

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Community Considerations

- **Sediments would not be disposed in Hudson River Valley**
- **Dredged sediments would be transported to landfill via rail and/or barge (i.e., no trucking of sediments in project area)**
- **Community involvement in selection of sediment processing facility location**
- **Quality of Life Performance Standards and Engineering Performance Standards would be developed**
- **Field Office established**
- **Community Advisory Group (CAG) established**

Settlement Agreements

Sediment Sampling Administrative Order on Consent (2002)

- Approx. 50,000 sediment samples analyzed for PCBs to date
- Data used to develop dredge areas

Project Design Administrative Order on Consent (2003)

- Design of Phase 1 and Phase 2 dredging programs

Consent Decree for Remedial Action and OM&M (lodged with Court October 2005; entered November 2006)

- Implement Phase 1; independent peer review of Phase 1 prior to implementing Phase 2
- GE can opt out of agreement for Phase 2; EPA retains all enforcement rights should GE opt out

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EPA Retained Activities

- **Engineering Performance Standards**
- **Quality of Life Performance Standards**
- **Siting of Sediment Processing Facility**
- **Community Outreach and Involvement**

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Engineering Performance Standards

Peer Reviewed Engineering Performance Standards established during project design

- **Dredging resuspension**
- **PCB residuals after dredging**
- **Production rate**

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Quality of Life Performance Standards

- **Air Quality**
- **Odor**
- **Noise**
- **Lighting**
- **Navigation**

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The Facility Siting Process

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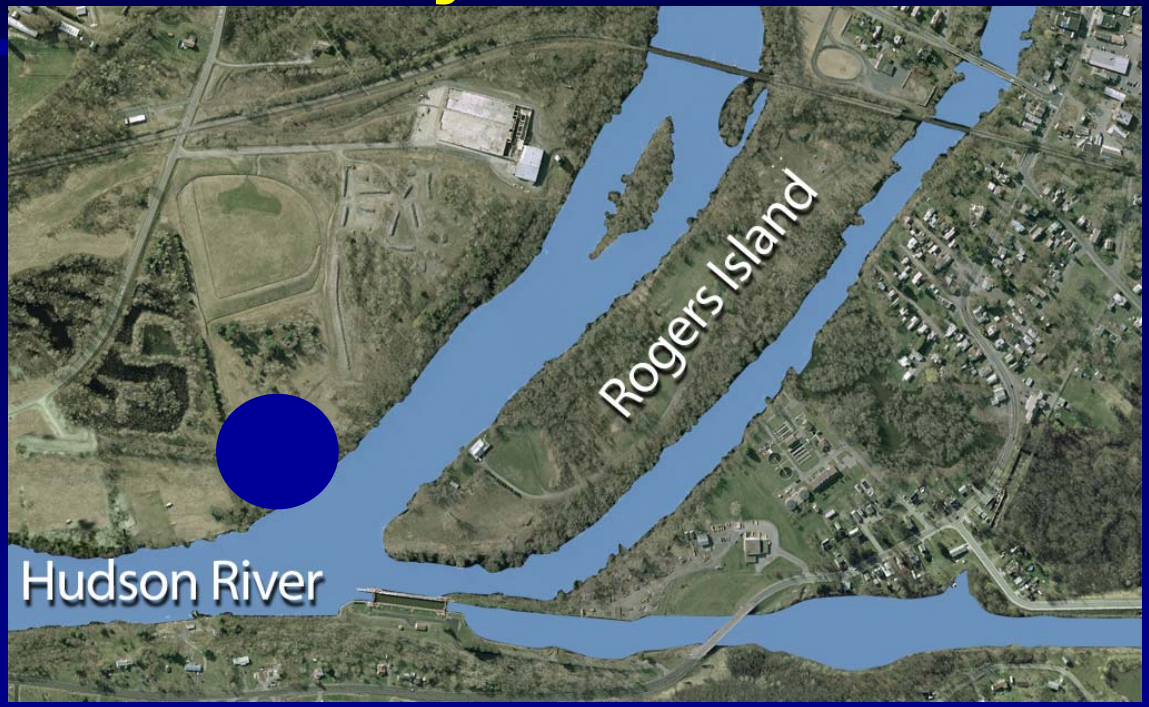
Project Marina



- 550 feet shoreline
- Dockage for 30 support boats
- No dredged sediments handled at site
- 4 mooring posts and turning dolphin in river

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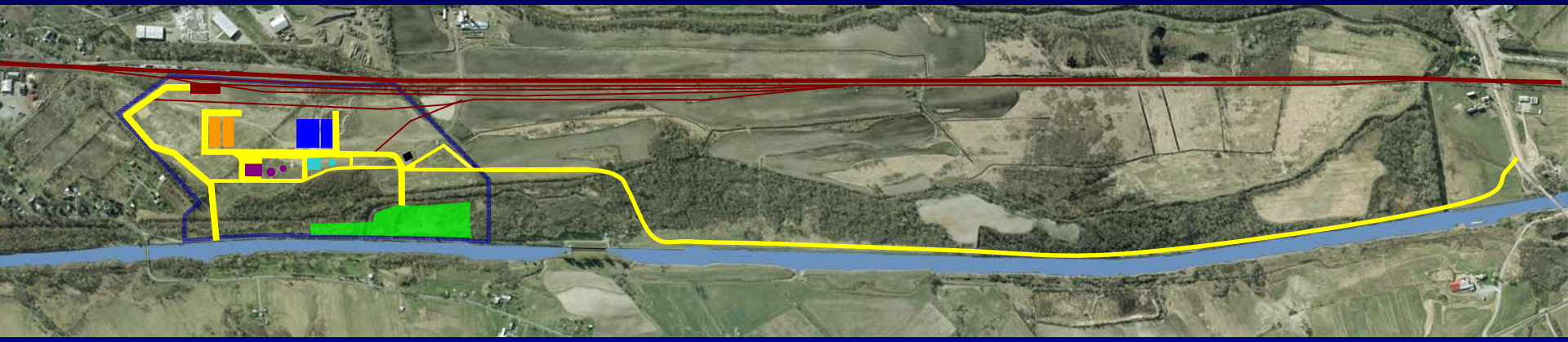
Fully-Constructed Sediment Processing Facility



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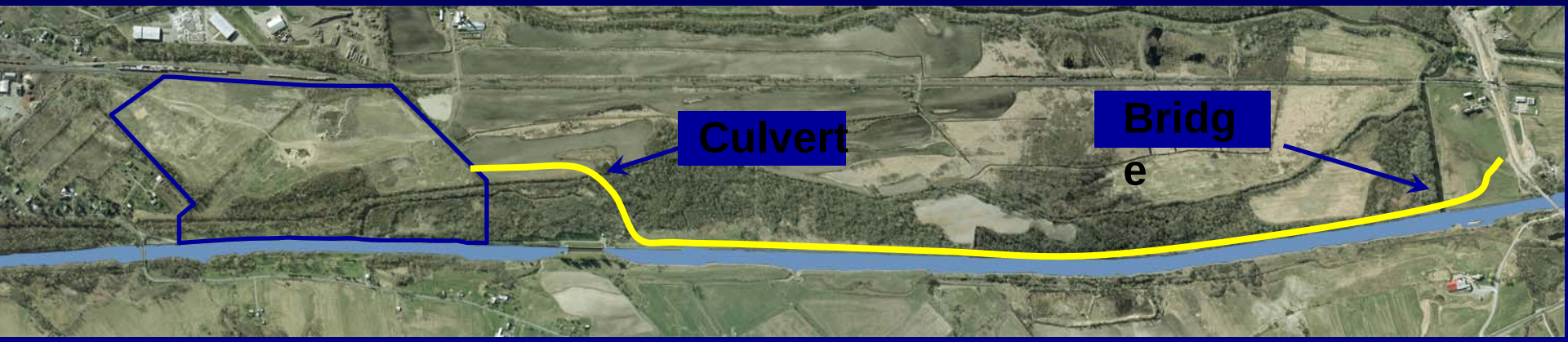
Construct Road to Access Site



- > Two-mile paved road
- > Build bridge over Feeder Canal and culvert to cross Bond Creek

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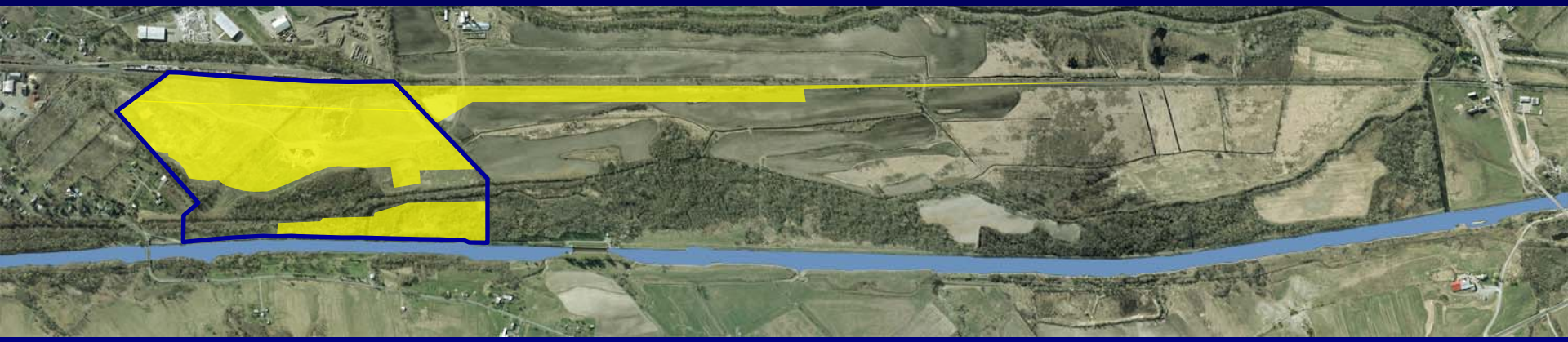
Excavation and Grading



- > Excavate 150,000 cubic yards of soil; use on site for regrading
  > Bring in 90,000 cubic yards of structural fill

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Wharf

- > Widen canal by 65 feet
- > 1,500 feet of shoreline; 1,200 square yards of elevated deck
- > 28,000 square yards of unloading wharf
- > 5,000 square yards of work wharf

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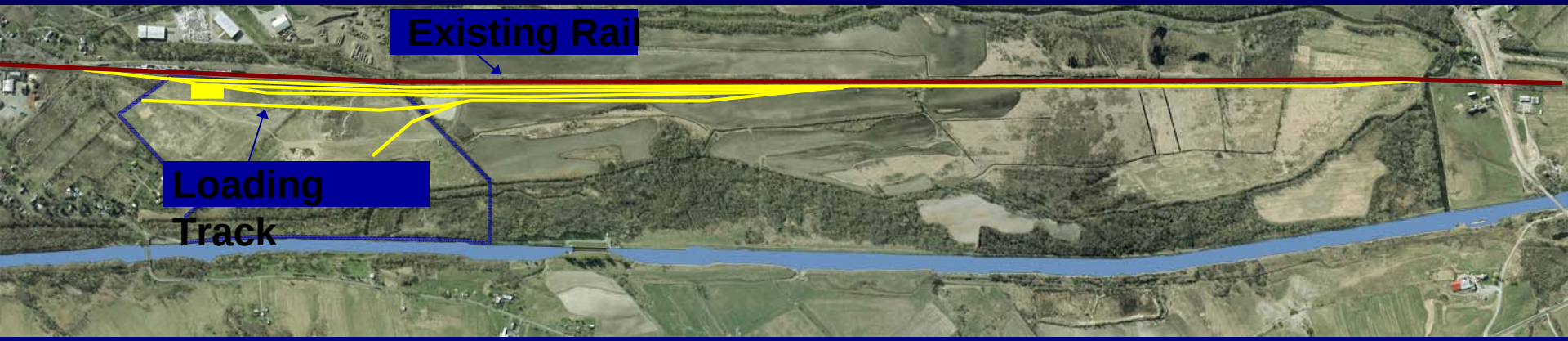
Rail Yard



- > Install 5 miles of rail track
- > CP to design/install 2 switches with signal controls
- > Build 7,000-square-foot rail support service building
- > 2 miles of rail yard service roads
- > Track capacity for 450 gondola cars
  - — Each 57’ long and carries 110 tons
  - — 81 cars per train

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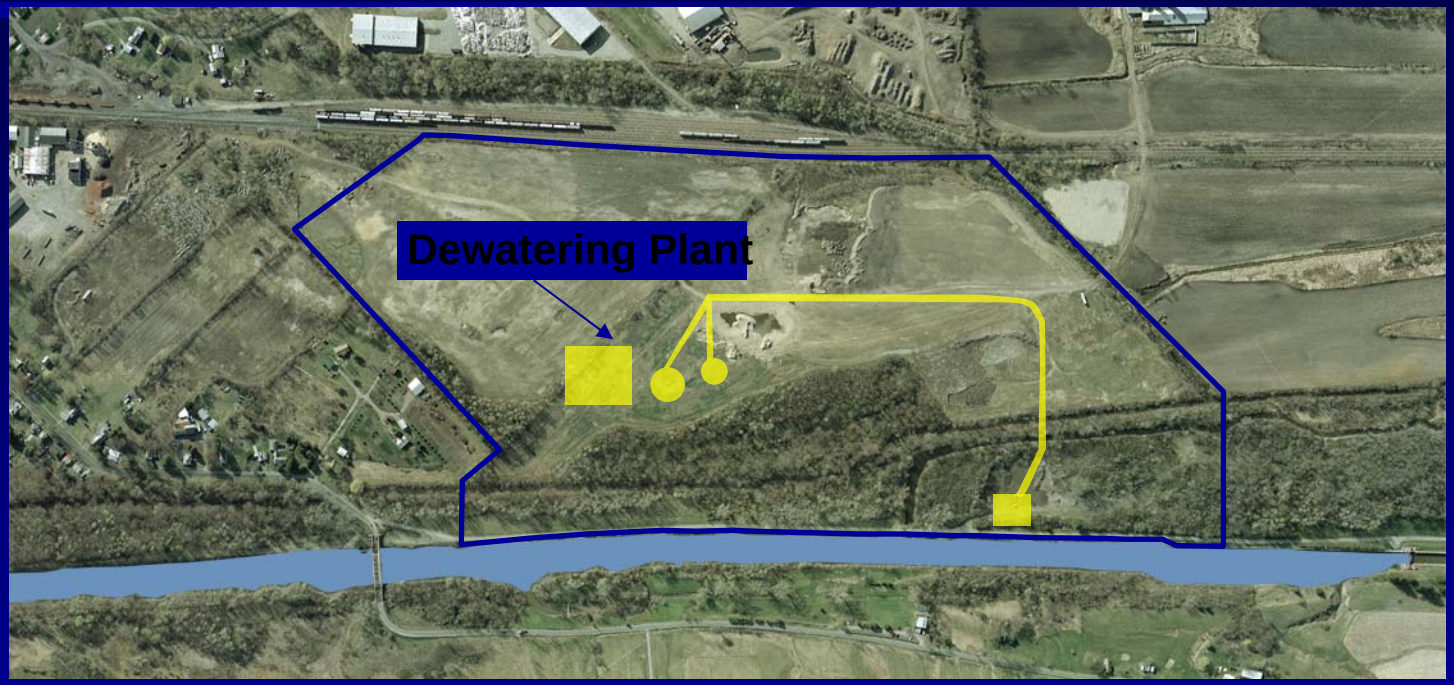
Sediment Dewatering Plant



- > 17,500 feet of process piping
- > 80-foot-diameter, 12-foot-high gravity thickener
- > 41,000-square-foot building; 40-feet high
- > 12 filter presses custom sized for project

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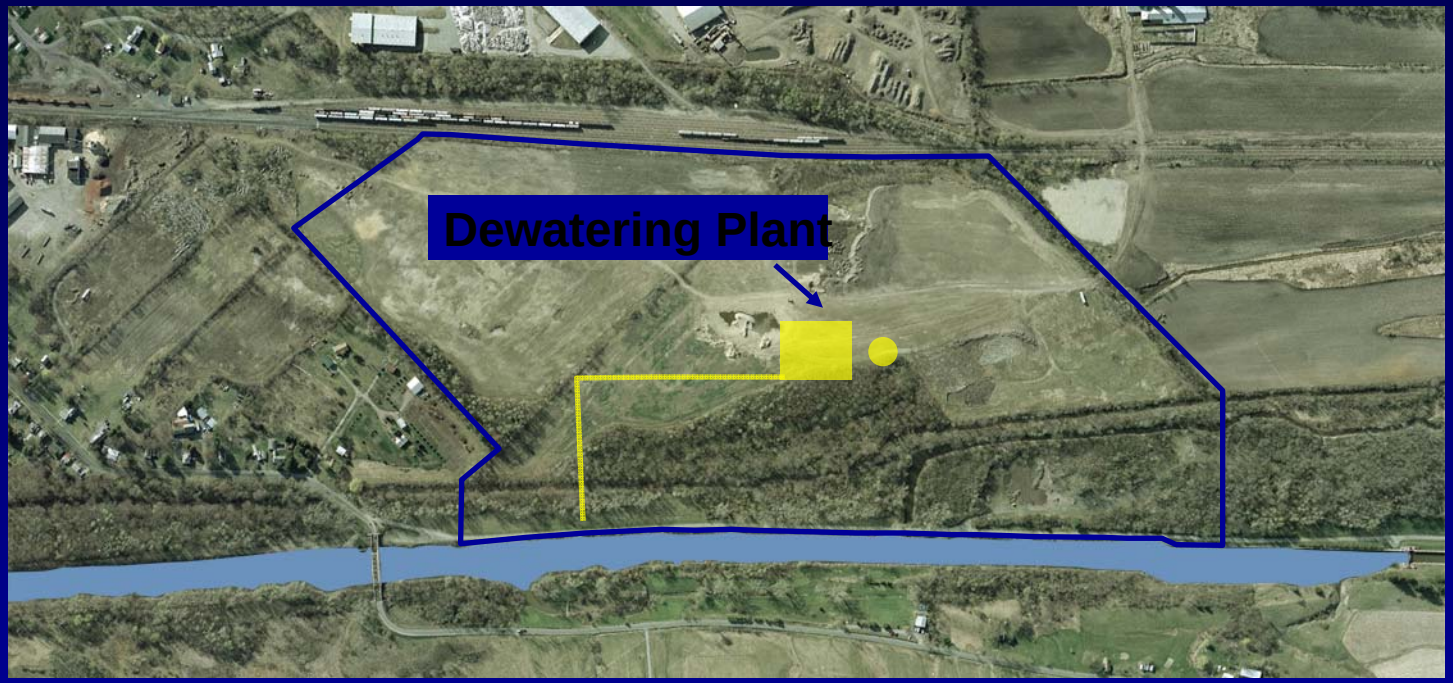
Water Treatment Plant



- > Handles process water and water from the stormwater basins
- > 25,500-square-foot building; 40-feet high
- > 2 million-gallon-a-day capacity

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Dredged Material Transport

- By rail to licensed facilities outside
- During Phase 1, approximately 390,000 tons of processed material will be transported offsite
- Two to four trains, each about 81 rail cars long, will be loaded each week

- A fleet of 450 gondola-type rail cars will be dedicated for the project
- Individually lined cars with covers or sealed cars with watertight hard lids will be used

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Habitat Replacement and Reconstruction Design

- Habitat Delineation and Assessment in Progress
- Determine Range of Structural Parameters Relevant to Ecological Functions within Habitat Types
- Utilize Information to Establish Design and Success Criteria and Monitoring Requirements
- Develop Active and Passive Designs for Replacement and Reconstruction
- Utilize Adaptive Management Framework

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Keeping the Public Informed

- Monthly progress reports
- Community liaison
- 24/7 hotline
- Project Web site
- Listserv/mailing list
- E-mail
- Notices to mariners

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Construction Contracts

Phase 1 Final Design broken into more than 6 contracts and additional appendices and reports; contracts are as follows:

1. **Facility site work construction (Earthwork, Stormwater, Utilities, Pavement & Landscaping, Wharf, Access Road)**
2. **Rail Yard Construction (Ties, Track, Turnouts, Scale & Rail Yard Building)**
3. **Processing Facility (A) Construction (Procure, Install, Test and Commission Process Equipment, Buildings, Controls, Power and Communications) (B) Operations (Operate and Maintain Water Treatment/Dewatering Plant)**
4. **Dredging Operations (Dredge, Backfill, Cap & Shoreline Stabilization)**
5. **Habitat Construction (Plantings)**
6. **Rail Yard Operations (Rail Car Movement in Yard, Rail Car Loading, Rail Car Logistics)**

Other Significant Contracts

- Contract with landfill for disposal of sediment
- Contract with rail carriers for transport of sediment
- Contract to manufacture fleet of 450+ rail cars
- Contract with National Grid for power
- Lease with WCC for Energy Park property
- Lease with Canal Corps

Design Speed Bumps

- Coordinating/optimizing sediment processing facility selection vis a vis selection of disposal facility, rail or barge transport and sediment removal method
- Addressing concerns from communities along 80 miles of Upper Hudson shoreline, as well as Lower Hudson
- NIMBY issues for sediment processing facility
- Intervention by Town of Fort Edward in entry of CD

Design Speed Bumps cont.

- Balancing habitat design concerns with engineering design issues (stability vs. habitat suitability) for backfill, capping and bank/shoreline reconstruction
- Balancing engineering performance standards: resuspension and residuals vs. productivity
- Visibility of project/high priority given to project by numerous government agencies resulting in perspectives that may not align
- GE/EPA differences of opinion (dispute issues with GE)

Design Dispute Issues

Settlement agreements contain provisions for GE to dispute EPA comments/direction. Examples of disputed subjects:

- Dredge Area Delineation (use of surface concentration and statistical methods for analyzing PCB data)
- Contingency Plans for water supplies if impacted by resuspension
- Restoration of bathymetry in nearshore areas

Questions

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